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10/750,554	12/31/2003	Muralcedhara Herur Navada	10559-906001 / P17954	5716

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MINNEAPOLIS, MN 55440-1022

EXAMINER
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NGUYEN, VAN KIM T

ART UNIT	PAPER NUMBER
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2152

MAIL DATE	DELIVERY MODE
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10/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/750,554

Applicant(s)

NAVADA ET AL.

Examiner

Van Kim T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on October 7, 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date April 19, 2004.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This Office Action is responsive to communications filed on December 31, 2003.

Claims 1-26 are pending in the case.

#### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on April 19, 2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation of "a packet forwarder" comprises "a process to ..." It is unclear as whether the "*packet forwarder*" is a method or an apparatus.

#### ***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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6. Claims 8-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

7. Claims 8-14 recite the limitation "A computer program product" which directs to an abstract idea that is not tied to any new and useful process, machine, manufacture, or composition of matter as required under the basis of statutory subject matter of 35 U.S.C. 101. Data structures not claimed as embodied in a computer readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computing environment. See e.g., Warmerdam, 33 F. 3d at 1361, 31 USPQ2d at 1754 (claim to a structure per se held nonstatutory).

8. Claims 8-14 recite the limitation "A computer program product, tangibly embodied in an information carrier" which directs to nonstatutory subject matter since "*an information carrier*" is not limited to tangible embodiments.

To overcome this type of 101 rejections the claims need to be amended to include only the physical computer media and not a transmission media or other intangible or non-functional media. It is noted carrier medium and transmission media would be not statutory but storage media would be statutory.

To expedite a complete examination of the instant application the claims rejected under 35 USC 101 (nonstatutory) above further rejected as set forth below in anticipation of applicant amending these claims to place them within the four categories of invention.

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to

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prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1, 3-5, 7-8, 10-12, 14-15, 17-18, 20-21, 23-24 and 26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 4-5, 7-9, 11-12, 14-15, 16, 18-19, 21-22, and 24-25, of copending Application No. 10/749,792, respectively, in view of Sallet et al (US 6,490,276). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims recite substantially same limitations, except delivering the packet to an exception processor being shared by the packet forwarding device in the stack. Sallet discloses a method for forwarding a data frame from a first switch to a second switch, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Sallet's method of forwarding data frames to the instance application in order to transmit data effectively.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 8, 15, 18, 21 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Salett et al (US 6,490,276), hereinafter Salett, in view of Kalkunte et al (US 7,139,269).

Regarding claims 1, 8, 15, 18, 21 and 24, Salett discloses a method comprising:

inserting a vector in a packet that identifies a first device in a stack of packet forwarding devices that delivers the packet to an exception processor (e.g., a 64-bit header is used to indicate the source and destination information for each set of data frames transmitted on the network. The encoding is preferably in a vector form of 1 bit per port; col. 3: lines 44-63 and col. 4: lines 15-21).

However, Salett does not explicitly call for the exception processor being shared by the packet forwarding devices in the stack.

As shown in Figure 41, Kalkunte teaches the server (port 8) is being shared by clients (ports 1-6).

Kaklunte's shared exception processor is a well-known configuration in the art, e.g., a router routes traffic for many sources or a server can be shared among/connected to many clients. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made that Kaklunte's shared exception processor is a viable option in Salett's system.

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Regarding claims 2, 9, 16, 19, 22 and 25, Salett-Kalkunte also discloses inserting a flag in the packet that indicates the packet is associated with an exception (e.g., the header provides six bits for the destination; Salett, col. 4: lines 18-21).

Regarding claims 3, 10, 17, 20, 23 and 26, Salett-Kalkunte also discloses using the vector and a table to determine a port for sending the packet to the first device in the stack of packet forwarding devices (using 64-bit word and CAM 213, 221 to transfer data frames between a port to a switch or between switches, e.g., when station A215 first transmits a data frame, it is received by switch 205 on port 4. The CAM 213 in switch 205 updates a station list contained in the CAM 213 to indicate that station A215 is on port 4; Salett, col. 4: lines 39-50).

Regarding claims 4 and 11, Salett-Kalkunte also discloses the vector includes a bit identifying the first device in the stack of packet forwarding devices (e.g., the lower 56 bits of the 64-bit CAM cycle word is used to indicate source or routing information for a data frame, with bits 48-55 are used to indicate the network switches; Salett, col. 3: lines 44-63).

Regarding claims 7 and 14, Salett-Kalkunte also discloses the vector includes bits respectively identifying the packet forwarding devices in the stack (e.g., the lower 56 bits of the 64-bit CAM cycle word is used to indicate source or routing information for a data frame, with bits 48-55 are used to indicate the network switches; Salett, col. 3: lines 44-63).

*Claim Rejections - 35 USC § 103*

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 5-6 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salett-Kalkunte as respectively applied to claims 1 and 8 above, in view of Abali et al (US 5,721,820), hereinafter Abali.

Salett-Kalkunte discloses substantially all claimed limitations, except removing the vector from the packet for delivering the packet to the exception processor.

Abali teaches removing the vector from the packet for delivering the packet to the exception processor (e.g., in source-based routing scheme, switches do not make any intelligent routing decisions. The switch strips off the first word before forwarding the packet to the next level in the network. Thus the packet contains no routing information upon arriving its ultimate destination; col. 1: lines 46-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Abali's method of routing data in Salett-Kalkunte's system in order to provide data routing in a topology independent fashion that satisfies cost, performance and resource constraints.

Regarding claims 6 and 13, Salett-Kalkunte-Abali also discloses the packet is delivered over a transmission line in an aggregate of transmission lines to the exception processor shared



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by the packet forwarding devices in the stack (Abali; Figure 1, communications in the network is facilitated by links connecting the processors or switches; col. 3: lines 3-25).

### *Conclusion*

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Method and Apparatus for Path Configuration in Networks, Matsubara (US 7,215,640);  
Method and Apparatus for Routing Encoded Signals through a Network, Dunning et al (US 7,161,937);  
System and Method for Router Packet Control and Ordering, Brewer et al (US 6,876,657); and  
Port Aggregation Across Stack of Devices, Singh et al (US 200/0013212).

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Van Kim T. Nguyen whose telephone number is 571-272-3073. The examiner can normally be reached on 8:00 AM - 4:30 PM.

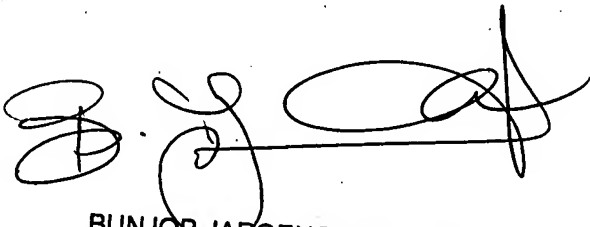
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Van Kim T. Nguyen  
Examiner  
Art Unit 2152

vkn



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SUPERVISORY PATENT EXAMINER  
9/27/7